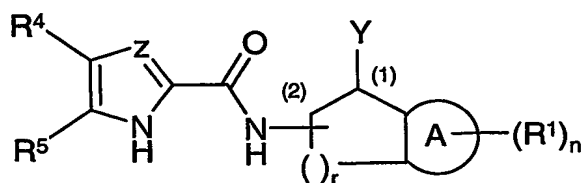


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**Claims**

1. A compound of formula (1):



(1)

5

wherein:

Z is CH or nitrogen;

R<sup>4</sup> and R<sup>5</sup> together are either -S-C(R<sup>6</sup>)=C(R<sup>7</sup>)- or -C(R<sup>7</sup>)=C(R<sup>6</sup>)-S-;

R<sup>6</sup> and R<sup>7</sup> are independently selected from hydrogen, halo, nitro, cyano, hydroxy,

10 fluoromethyl, difluoromethyl, trifluoromethyl, trifluoromethoxy, carboxy, carbamoyl,

C<sub>1-4</sub>alkyl, C<sub>2-4</sub>alkenyl, C<sub>2-4</sub>alkynyl, C<sub>1-4</sub>alkoxy and C<sub>1-4</sub>alkanoyl;

A is phenylene or heteroarylene;

n is 0, 1 or 2;

R<sup>1</sup> is independently selected from halo, nitro, cyano, hydroxy, carboxy, carbamoyl,

15 N-C<sub>1-4</sub>alkylcarbamoyl, N,N-(C<sub>1-4</sub>alkyl)<sub>2</sub>carbamoyl, sulphamoyl, N-C<sub>1-4</sub>alkylsulphamoyl,

N,N-(C<sub>1-4</sub>alkyl)<sub>2</sub>sulphamoyl, -S(O)<sub>b</sub>C<sub>1-4</sub>alkyl (wherein b is 0,1,or 2), C<sub>1-4</sub>alkyl, C<sub>2-4</sub>alkenyl,

C<sub>2-4</sub>alkynyl, C<sub>1-4</sub>alkoxy, C<sub>1-4</sub>alkanoyl, C<sub>1-4</sub>alkanoyloxy, hydroxyC<sub>1-4</sub>alkyl, fluoromethyl,

difluoromethyl, trifluoromethyl and trifluoromethoxy;

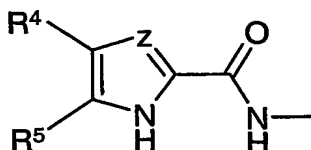
or, when n is 2, the two R<sup>1</sup> groups, together with the carbon atoms of A to which they are

20 attached, may form a 4 to 7 membered ring, optionally containing 1 or 2 heteroatoms

independently selected from O, S and N, and optionally being substituted by one or two

methyl groups;

r is 1 or 2; and when r is 1 the group



25 is a substituent on carbon (2) and when r is 2 (hereby forming a six membered ring) the same

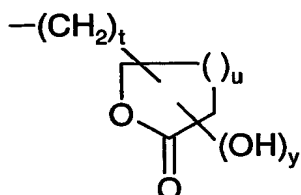
group is a substituent on carbon (2) or on carbon (3);

Y is -NR<sup>2</sup>R<sup>3</sup> or -OR<sup>3</sup>;

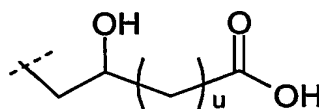
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$R^2$  and  $R^3$  are independently selected from hydrogen, hydroxy,  $C_{1-4}$ alkoxy,  $C_{1-4}$ alkanoyl, carbamoyl,  $C_{3-7}$ cycloalkyl (optionally substituted with 1 or 2 hydroxy groups), cyano( $C_{1-4}$ )alkyl, heterocyclyl, aryl,  $C_{1-4}$ alkyl [optionally substituted by 1 or 2  $R^8$  groups],  $-COR^8$ ,  $-SO_bR^8$  (wherein b is 0, 1 or 2) and

5 groups of the formulae B and B':



(B)



(B')

wherein y is 0 or 1, t is 0, 1, 2 or 3 and u is 1 or 2; provided that the hydroxy group is not a substituent on the ring carbon adjacent to the ring oxygen; or

10 wherein  $NR^2R^3$  may form a 4 to 7 membered saturated, partially saturated or unsaturated ring, optionally containing 1, 2 or 3 additional heteroatoms independently selected from N, O and S, wherein any  $-CH_2-$  may optionally be replaced by  $-C(=O)-$ , and any N or S atom may optionally be oxidised to form an N-oxide or SO or  $SO_2$  group respectively, and wherein the ring is optionally substituted by 1 or 2 substituents independently selected from halo, cyano,

15  $C_{1-4}$ alkyl, hydroxy,  $C_{1-4}$ alkoxy and  $C_{1-4}alkylS(O)_b-$  (wherein b is 0, 1 or 2);

$R^8$  is independently selected from hydrogen, hydroxy,  $C_{1-4}$ alkyl,  $C_{2-4}$ alkenyl,  $C_{1-4}$ alkoxy, cyano( $C_{1-4}$ )alkyl, amino( $C_{1-4}$ )alkyl [optionally substituted on nitrogen by 1 or 2 groups selected from  $C_{1-4}$ alkyl, hydroxy, hydroxy( $C_{1-4}$ )alkyl, dihydroxy( $C_{1-4}$ )alkyl,  $-CO_2C_{1-4}$ alkyl, aryl and aryl( $C_{1-4}$ )alkyl], halo( $C_{1-4}$ )alkyl, dihalo( $C_{1-4}$ )alkyl, trihalo( $C_{1-4}$ )alkyl,

20 hydroxy( $C_{1-4}$ )alkyl, dihydroxy( $C_{1-4}$ )alkyl,  $C_{1-4}alkoxyC_{1-4}alkoxy$ ,  $C_{1-4}alkoxyC_{1-4}alkyl$ , hydroxy $C_{1-4}alkoxy$ , 5- and 6-membered cyclic acetals and mono- and di-methyl derivatives thereof, aryl, heterocyclyl, (heterocyclyl) $C_{1-4}alkyl$ ,  $C_{3-7}$ cycloalkyl (optionally substituted with 1 or 2 hydroxy groups,  $C_{1-4}$ alkyl or  $-C(O)OC_{1-4}alkyl$ ),  $C_{1-4}alkanoyl$ ,  $C_{1-4}alkylS(O)_b-$  (wherein b is 0, 1 or 2),  $C_{3-6}$ cycloalkyl $S(O)_b-$  (wherein b is 0, 1 or 2), aryl $S(O)_b-$  (wherein b is 0, 1 or

25 2), heterocyclyl $S(O)_b-$  (wherein b is 0, 1 or 2), benzyl $S(O)_b-$  (wherein b is 0, 1 or 2),

$C_{1-4}alkylS(O)_c(C_{1-4})alkyl$  (wherein c is 0, 1 or 2),  $-N(OH)CHO$ ,  $-C(=N-OH)NH_2$ ,  $-C(=N-OH)NHC_{1-4}alkyl$ ,  $-C(=N-OH)N(C_{1-4}alkyl)_2$ ,  $-C(=N-OH)NHC_{3-6}$ cycloalkyl,  $-C(=N-OH)N(C_{3-6}$ cycloalkyl) $_2$ ,  $-COCOOR^9$ ,  $-C(O)N(R^9)(R^{10})$ ,  $-NHC(O)R^9$ ,  $-C(O)NHSO_2(C_{1-4}alkyl)$ ,  $-NHSO_2R^9$ ,  $(R^9)(R^{10})NSO_2-$ ,  $-COCH_2OR^{11}$ ,  $(R^9)(R^{10})N-$  and

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-COOR<sup>9</sup>, -CH<sub>2</sub>OR<sup>9</sup>, -CH<sub>2</sub>COOR<sup>9</sup>, -CH<sub>2</sub>OCOR<sup>9</sup>, -CH<sub>2</sub>CH(CO<sub>2</sub>R<sup>9</sup>)OH, -CH<sub>2</sub>C(O)NR<sup>9</sup>R<sup>10</sup>,  
 -(CH<sub>2</sub>)<sub>w</sub>CH(NR<sup>9</sup>R<sup>10</sup>)CO<sub>2</sub>R<sup>9</sup> (wherein w is 1, 2 or 3), and -(CH<sub>2</sub>)<sub>w</sub>CH(NR<sup>9</sup>R<sup>10</sup>)CO(NR<sup>9</sup>R<sup>10</sup>)  
 (wherein w is 1, 2 or 3);

R<sup>9</sup>, R<sup>9'</sup>, R<sup>10</sup> and R<sup>10'</sup> are independently selected from hydrogen, hydroxy, C<sub>1-4</sub>alkyl

- 5 (optionally substituted by 1 or 2 R<sup>13</sup>), C<sub>2-4</sub>alkenyl, C<sub>3-7</sub>cycloalkyl (optionally substituted by 1 or 2 hydroxy groups), cyano(C<sub>1-4</sub>)alkyl, trihaloalkyl, aryl, heterocyclyl, heterocyclyl(C<sub>1-4</sub>alkyl), and -C(=O)O(C<sub>1-4</sub>)alkyl; or

R<sup>9</sup> and R<sup>10</sup> together with the nitrogen to which they are attached, and/or R<sup>9'</sup> and R<sup>10'</sup> together with the nitrogen to which they are attached, form a 4- to 6-membered ring where the ring is

- 10 optionally substituted on carbon by 1 or 2 substituents independently selected from oxo, hydroxy, carboxy, halo, nitro, cyano, carbonyl, C<sub>1-4</sub>alkoxy and heterocyclyl; or the ring may be optionally substituted on two adjacent carbons by -O-CH<sub>2</sub>-O- to form a cyclic acetal wherein one or both of the hydrogens of the -O-CH<sub>2</sub>-O- group may be replaced by a methyl;

R<sup>13</sup> is selected from halo, trihalomethyl, and C<sub>1-4</sub>alkoxy;

- 15 R<sup>11</sup> is independently selected from hydrogen, C<sub>1-4</sub>alkyl, and hydroxyC<sub>1-4</sub>alkyl;

or a pharmaceutically acceptable salt or pro-drug thereof;

with the proviso that the compound of formula (1) is not:

- i) 2,3-dichloro-5-(N-{1-[N-(1,1-dimethylethoxy)carbonylamino]indan-2-yl}carbamoyl)-4*H*-thieno[3,2-*b*]pyrrole;
- 20 ii) 5-[N-(1-aminoindan-2-yl)carbamoyl]-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole
- iii) 5-[N-(1-acetamidoindan-2-yl)carbamoyl]-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole
- iv) 2,3-dichloro-5-{N-[1-(methanesulphonamido)indan-2-yl]carbamoyl}-4*H*-thieno[3,2-*b*]pyrrole
- v) 2,3-dichloro-5-{N-[1-(methylamino)indan-2-yl]carbamoyl}-4*H*-thieno[3,2-*b*]pyrrole;
- 25 vi) 2,3-dichloro-5-{N-[1-(methylacetamido)indan-2-yl]carbamoyl}-4*H*-thieno[3,2-*b*]pyrrole;
- vii) 2,3-dichloro-5-[N-(1-hydroxyindan-2-yl)carbamoyl]-4*H*-thieno[3,2-*b*]pyrrole;
- viii) 2-chloro-5-[N-(1-hydroxyindan-2-yl)carbamoyl]-6*H*-thieno[2,3-*b*]pyrrole;
- 30 ix) 2,3-dichloro-5-[N-(6-fluoro-1-hydroxyindan-2-yl)carbamoyl]-4*H*-thieno[3,2-*b*]pyrrole
- x) 2,3-dichloro-5-[N-(1-methoxyindan-2-yl)carbamoyl]-4*H*-thieno[3,2-*b*]pyrrole;

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xi) 2,3-dichloro-5-[N-(1-hydroxy-1,2,3,4-tetrahydronaphth-2-yl)carbamoyl]-4H-thieno[3,2-*b*]pyrrole.

2. A compound of the formula (1) as claimed in claim 1, wherein:

- 5  $R^2$  and  $R^3$  are independently selected from hydrogen, hydroxy,  $C_{1-4}$ alkyl [optionally substituted by 1 or 2  $R^8$  groups],  $C_{3-7}$ cycloalkyl (optionally substituted with 1 or 2 hydroxy groups), cyano( $C_{1-4}$ )alkyl, phenyl, morpholino, morpholinyl, piperidino, piperidyl, pyridyl, pyranyl, pyrrolyl, imidazolyl, thiazolyl, thienyl, thiadiazolyl, piperazinyl, isothiazolidinyl, 1,3,4-triazolyl, tetrazolyl, pyrrolidinyl, thiomorpholino, pyrrolinyl, homopiperazinyl,
- 10 3,5-dioxapiperidinyl, pyrimidyl, pyrazinyl, pyridazinyl, pyrazolyl, pyrazolinyl, isoxazolyl, 4-oxopyridyl, 2-oxopyrrolidyl, 4-oxothiazolidyl, furyl, thienyl, oxazolyl, 1,3,4-oxadiazolyl, and 1,2,4-oxadiazolyl, tetrahydrothiopyranyl, 1-oxotetrahydrothiopyranyl, 1,1-dioxotetrahydrothiopyranyl,  $-COR^8$  and  $-SO_bR^8$  (wherein  $b$  is 0, 1 or 2);  $R^8$  is independently selected from hydrogen, hydroxy,  $C_{1-4}$ alkoxy,  $C_{1-4}$ alkoxy $C_{1-4}$ alkyl,
- 15  $C_{1-4}$ alkoxy $C_{1-4}$ alkoxy, hydroxy $C_{1-4}$ alkoxy,  $C_{1-4}$ alkyl, amino( $C_{1-4}$ )alkyl [optionally substituted on nitrogen by 1 or 2 groups selected from  $C_{1-4}$ alkyl, hydroxy( $C_{1-4}$ )alkyl, dihydroxy( $C_{1-4}$ )alkyl,  $-CO_2C_{1-4}$ alkyl, aryl and aryl( $C_{1-4}$ )alkyl],  $C_{2-4}$ alkenyl,  $C_{3-7}$ cycloalkyl (optionally substituted by  $-C(O)OC_{1-4}$ alkyl), 5- and 6-membered cyclic acetals and mono- and di-methyl derivatives thereof, halo( $C_{1-4}$ )alkyl, dihalo( $C_{1-4}$ )alkyl, trihalo( $C_{1-4}$ )alkyl, hydroxy( $C_{1-4}$ )alkyl,
- 20 dihydroxy( $C_{1-4}$ )alkyl, cyano( $C_{1-4}$ )alkyl, heterocyclyl, heterocyclyl $C_{1-4}$ alkyl, aryl,  $C_{1-4}$ alkylS(O) $_b$ - (wherein  $b$  is 0, 1 or 2),  $C_{3-6}$ cycloalkylS(O) $_b$ - (wherein  $b$  is 0, 1 or 2), arylS(O) $_b$ - (wherein  $b$  is 0, 1 or 2), heterocyclylS(O) $_b$ - (wherein  $b$  is 0, 1 or 2), benzylS(O) $_b$ - (wherein  $b$  is 0, 1 or 2),  $C_{1-4}$ alkylS(O) $_c$ ( $C_{1-4}$ )alkyl (wherein  $c$  is 0, 1 or 2),  $-CH_2CH(NR^9R^{10})CO(NR^9R^{10})$ ,  $-CH_2OR^9$ ,  $(R^9)(R^{10})N-$ ,  $-COOR^9$ ,  $-CH_2COOR^9$ ,
- 25  $-C(O)N(R^9)(R^{10})$ ,  $-CH_2CH(CO_2R^9)OH$ ,  $-CH_2CONR^9R^{10}$ ,  $-CH_2CH(NR^9R^{10})CO_2R^9$  and  $-CH_2OCOR^9$ ;
- $R^9$ ,  $R^9$ ,  $R^{10}$  and  $R^{10}$  are independently selected from hydrogen,  $C_{1-4}$ alkyl (optionally substituted by 1 or 2  $R^{13}$ ),  $C_{3-7}$ cycloalkyl (optionally substituted by 1 or 2 hydroxy groups),  $-C(=O)O^tBu$ ,  $C_{2-4}$ alkenyl, cyano( $C_{1-4}$ )alkyl and phenyl (optionally substituted by 1 or 2 groups
- 30 selected from nitro, halo, hydroxy and cyano); or
- $R^9$  and  $R^{10}$  together with the nitrogen to which they are attached, and/or  $R^9$  and  $R^{10}$  together with the nitrogen to which they are attached, form a 4- to 6-membered ring where the ring is optionally substituted on carbon by 1 or 2 substituents independently selected from oxo,

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hydroxy, carboxy, halo, nitro, cyano, carbonyl and C<sub>1-4</sub>alkoxy; or the ring may be optionally substituted on two adjacent carbons by -O-CH<sub>2</sub>-O- to form a cyclic acetal wherein one or both of the hydrogens of the -O-CH<sub>2</sub>-O- group may be replaced by a methyl;

R<sup>13</sup> is selected from halo, trihalomethyl and C<sub>1-4</sub>alkoxy;

5 or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof.

3. A compound of the formula (1) as claimed in claim 1 or claim 2, wherein:

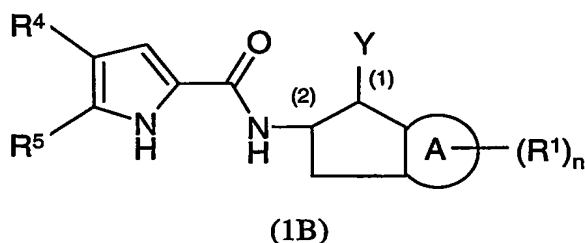
R<sup>2</sup> and R<sup>3</sup> are independently selected from hydrogen, C<sub>1-4</sub>alkyl [optionally substituted by 1 or 2 R<sup>8</sup> groups], -COR<sup>8</sup> and -SO<sub>b</sub>R<sup>8</sup> (wherein b is 0, 1 or 2);

- 10 R<sup>8</sup> is independently selected from hydrogen, hydroxy, C<sub>1-4</sub>alkoxy, C<sub>1-4</sub>alkoxyC<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkyl, amino(C<sub>1-4</sub>)alkyl [optionally substituted on nitrogen by 1 or 2 groups selected from C<sub>1-4</sub>alkyl, hydroxy(C<sub>1-4</sub>)alkyl, dihydroxy(C<sub>1-4</sub>)alkyl, -CO<sub>2</sub>C<sub>1-4</sub>alkyl, phenyl and aryl(C<sub>1-4</sub>)alkyl], C<sub>2-4</sub>alkenyl, C<sub>3-7</sub>cycloalkyl (optionally substituted by -C(O)OC<sub>1-4</sub>alkyl), 5- and 6-membered cyclic acetals and mono- and di-methyl derivatives thereof, halo(C<sub>1-4</sub>)alkyl, trihalo(C<sub>1-4</sub>)alkyl,
- 15 hydroxy(C<sub>1-4</sub>)alkyl, dihydroxy(C<sub>1-4</sub>)alkyl, cyano(C<sub>1-4</sub>)alkyl, furyl (optionally substituted on carbon by 1 or 2 nitro groups), thienyl (optionally substituted on carbon by 1 or 2 nitro groups), morpholino, furyl(C<sub>1-4</sub>)alkyl (wherein furyl is optionally substituted on carbon by 1 or 2 nitro groups), thienyl(C<sub>1-4</sub>)alkyl (wherein thienyl is optionally substituted on carbon by 1 or 2 nitro groups), 1,2,4-oxadiazolyl, tetrazolyl, imidazolyl, pyrrolidinyl, piperidyl, pyridyl,
- 20 tetrahydrofuryl, tetrahydropyranyl, 1-oxo-tetrahydrothiopyranyl, tetrahydrothienyl, phenyl (optionally substituted by 1 or 2 groups selected from nitro, halo, cyano, hydroxy and C<sub>1-4</sub>alkyl), pyrazinyl, piperazinyl, 4-methylpiperazino, C<sub>1-4</sub>alkylS(O)<sub>b</sub>- (wherein b is 0, 1 or 2), C<sub>3-6</sub>cycloalkylS(O)<sub>b</sub>- (wherein b is 0, 1 or 2), arylS(O)<sub>b</sub>- (wherein b is 0, 1 or 2), heterocyclylS(O)<sub>b</sub>- (wherein b is 0, 1 or 2 -CH<sub>2</sub>CH(NR<sup>9</sup>R<sup>10</sup>)CO(NR<sup>9</sup>R<sup>10</sup>'), -CH<sub>2</sub>OR<sup>9</sup>,
- 25 (R<sup>9</sup>)(R<sup>10</sup>)N-, -COOR<sup>9</sup>, -CH<sub>2</sub>COOR<sup>9</sup>, -C(O)N(R<sup>9</sup>)(R<sup>10</sup>), -CH<sub>2</sub>CH(CO<sub>2</sub>R<sup>9</sup>)OH, -CH<sub>2</sub>CONR<sup>9</sup>R<sup>10</sup>, -CH<sub>2</sub>CH(NR<sup>9</sup>R<sup>10</sup>)CO<sub>2</sub>R<sup>9</sup>' and -CH<sub>2</sub>OCOR<sup>9</sup>;
- R<sup>9</sup>, R<sup>9</sup>', R<sup>10</sup> and R<sup>10</sup>' are independently selected from hydrogen, C<sub>1-4</sub>alkyl (optionally substituted by 1 or 2 hydroxy groups), C<sub>2-4</sub>alkenyl, and phenyl (optionally substituted by 1 or 2 groups selected from nitro, halo, hydroxy and cyano);
- 30 or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof.

4. A compound as claimed in any preceding claim wherein Y is NR<sup>2</sup>R<sup>3</sup>, or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof.

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5. A compound as claimed in any one of claims 1 to 3 wherein Y is OR<sup>3</sup>, or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof.
6. A compound as claimed in any preceding claim wherein R<sup>4</sup> and R<sup>5</sup> together are
- 5 -S-C(R<sup>6</sup>)=C(R<sup>7</sup>)-, or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof.
7. A compound as claimed in any one of claims 1 to 5 wherein R<sup>4</sup> and R<sup>5</sup> together are -C(R<sup>7</sup>)=C(R<sup>6</sup>)-S- ; or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof.
- 10 8. A compound as claimed in any preceding claim wherein A is phenylene, or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof.
9. A compound as claimed in any one of claims 1 to 7 wherein A is heteroarylene, or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof.
- 15
10. A compound as claimed in any preceding claim wherein Z is CH, or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof.
11. A compound of the formula (1) as claimed in any preceding claim, which is a
- 20 compound of formula (1B):



or a pharmaceutically acceptable salt or an in-vivo hydrolysable ester thereof.

- 25 12. A compound of the formula (1) as claimed in claim 1, which is any one of:
- 2,3-dichloro-*N*-[(1*R*,2*R*)-1-(formylamino)-2,3-dihydro-1*H*-inden-2-yl]-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 2,3-dichloro-*N*-((1*R*,2*R*)-1-{[(methyloxy)acetyl]amino}-2,3-dihydro-1*H*-inden-2-yl)-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;

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- N*-((1*S*,2*S*)-1-{[(3(*R*)-3-(*tert*-butoxycarbonylamino)-3-carbamoylpropanoyl]amino}-2,3-dihydro-1*H*-inden-2-yl)-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;  
2,3-dichloro-*N*-[(1*R*,2*R*)-1-{[(4*R*)-2,2-dimethyl-5-oxo-1,3-dioxolan-4-yl]acetyl}amino)-2,3-dihydro-1*H*-inden-2-yl]-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 5 2,3-dichloro-*N*-{(1*R*,2*R*)-1-[(3-methoxypropanoyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;  
*N*-{(1*R*,2*R*)-1-[(2-acetoxyacetyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;  
*N*-{(1*R*,2*R*)-1-[(2-carbamoylacetyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2,3-dichloro-4*H*-
- 10 thieno[3,2-*b*]pyrrole-5-carboxamide;  
2,3-dichloro-*N*-{(1*R*,2*R*)-1-[(trifluoroacetyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;  
2,3-dichloro-*N*-{(1*S*,2*S*)-1-[(furan-2-ylcarbonyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 15 2,3-dichloro-*N*-{(1*S*,2*S*)-1-[(furan-3-ylcarbonyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;  
2,3-dichloro-*N*-{(1*S*,2*S*)-1-[(3-thienylcarbonyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;  
2,3-dichloro-*N*-((1*S*,2*S*)-1-{[(5-nitrofuran-2-yl)carbonyl]amino}-2,3-dihydro-1*H*-inden-2-yl)-
- 20 4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;  
2,3-dichloro-*N*-{(1*S*,2*S*)-1-[(pyridin-3-ylcarbonyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;  
*N*-[(1*S*,2*S*)-1-(acryloylamino)-2,3-dihydro-1*H*-inden-2-yl]-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 25 2,3-dichloro-*N*-((1*S*,2*S*)-1-{[(3-hydroxyphenyl)carbonyl]amino}-2,3-dihydro-1*H*-inden-2-yl)-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;  
*N*-[(1*S*,2*S*)-1-(acetylamino)-2,3-dihydro-1*H*-inden-2-yl]-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;  
*N*-[(1*S*,2*S*)-1-[(2-carboxyacetyl)amino]-2,3-dihydro-1*H*-inden-2-yl]-2,3-dichloro-4*H*-
- 30 thieno[3,2-*b*]pyrrole-5-carboxamide;  
2,3-dichloro-*N*-((1*S*,2*S*)-1-{[(dimethylamino)carbonyl]amino}-2,3-dihydro-1*H*-inden-2-yl)-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;

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- 2,3-dichloro-*N*-((1*S*,2*S*)-1-[[ (4-methylpiperazin-1-yl)carbonyl]amino]-2,3-dihydro-1*H*-inden-2-yl)-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 2,3-dichloro-*N*-((1*S*,2*S*)-1-[[ (ethylamino)carbonyl]amino]-2,3-dihydro-1*H*-inden-2-yl)-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 5 2,3-dichloro-*N*-((1*S*,2*S*)-1-[[ (prop-2-en-1-ylamino)carbonyl]amino]-2,3-dihydro-1*H*-inden-2-yl)-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 2,3-dichloro-*N*-[(1*S*,2*S*)-1-((3,5-dinitrophenyl)amino)carbonyl]amino)-2,3-dihydro-1*H*-inden-2-yl)-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 2,3-dichloro-*N*-[(1*S*,2*S*)-1-(formylamino)-2,3-dihydro-1*H*-inden-2-yl]-4*H*-thieno[3,2-  
 10 *b*]pyrrole-5-carboxamide;
- N*-{(1*R*,2*R*)-1-[(3*R*)-3-amino-3-carbamoylpropanoyl]amino]-2,3-dihydro-1*H*-inden-2-yl}-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- N*-(1*R*,2*R*)-1-[(3*R*)-3-carboxy-3-hydroxypropanoyl]amino]-2,3-dihydro-1*H*-inden-2-yl}-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 15 2,3-dichloro-*N*-{(1*R*,2*R*)-1-[(hydroxyacetyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 2,3-dichloro-*N*-{(1*S*,2*S*)-1-[(methylsulfonyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 2,3-dichloro-*N*-{(1*S*, 2*S*)-1-[methyl(morpholin-4-ylacetyl)amino]-2,3-dihydro-1*H*-inden-2-  
 20 yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- N*-{(1*R*,2*R*)-1-[(2-amino-2-oxoethyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- N*-(1*R*,2*R*)-1-[(tert-butoxycarbonylmethyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 25 *N*-[(1*R*,2*R*)-1-(carboxymethylamino)-2,3-dihydro-1*H*-inden-2-yl]-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- N*-(1*R*,2*R*)-1-[*N*-acetyl-*N*-(carboxymethyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- N*-{(1*R*,2*R*)-1-[acetyl(2-amino-2-oxoethyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2,3-dichloro-  
 30 4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- N*-{(1*R*,2*R*)-1-[*N*-(carboxymethyl)-*N*-(hydroxyacetyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;



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- 2-chloro-*N*-[(1*R*,2*R*)-1-({[(2*S*)-5-oxotetrahydrofuran-2-yl]carbonyl} amino)-2,3-dihydro-1*H*-inden-2-yl]-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;
- 2-chloro-*N*-[(1*R*,2*R*)-1-(formylamino)-2,3-dihydro-1*H*-inden-2-yl]-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;
- 5 2-chloro-*N*-{(1*R*,2*R*)-1-[(methoxyacetyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;
- N*-[(1*R*,2*R*)-1-(acetylamino)-2,3-dihydro-1*H*-inden-2-yl]-2-chloro-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;
- 2-chloro-*N*-{(1*R*,2*R*)-1-[(3-methoxypropanoyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-6*H*-
- 10 thieno[2,3-*b*]pyrrole-5-carboxamide;
- N*-{(1*R*,2*R*)-1-[(2-acetoxyacetyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2-chloro-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;
- N*-{[(1*S*,2*S*)-1-({[(2*S*)-2-(*tert*-butoxycarbonylamino)-2-carbamoylacetyl] amino})-2,3-dihydro-1*H*-inden-2-yl]-2-chloro-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide};
- 15 *N*-{(1*S*,2*S*)-1-[(2-(*tert*-butoxycarbonylamino)acetyl amino)-2,3-dihydro-1*H*-inden-2-yl]-2-chloro-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide};
- N*-{(1*R*,2*R*)-1-[2-carbamoylacetyl] amino)-2,3-dihydro-1*H*-inden-2-yl}-2-chloro-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;
- N*-{(1*R*,2*R*)-1-[2-(*tert*-butoxycarbonyl)acetyl amino)-2,3-dihydro-1*H*-inden-2-yl]-2-chloro-6*H*-
- 20 thieno[2,3-*b*]pyrrole-5-carboxamide;
- 2-chloro-*N*-{(1*R*,2*R*)-1-({[3-hydroxy-2-(hydroxymethyl)propanoyl] amino})-2,3-dihydro-1*H*-inden-2-yl)-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;
- N*-{(1*R*,2*R*)-1-[(3*R*)-3-amino-3-carbamoylpropanoyl] amino)-2,3-dihydro-1*H*-inden-2-yl}-2-chloro-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;
- 25 *N*-{(1*R*,2*R*)-1-[(aminoacetyl) amino)-2,3-dihydro-1*H*-inden-2-yl]-2-chloro-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide};
- 2-chloro-*N*-[(1*R*,2*R*)-1-({[(2-hydroxyethyl)(phenylmethyl) amino] acetyl} amino)-2,3-dihydro-1*H*-inden-2-yl)-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;
- 2-chloro-*N*-{(1*R*,2*R*)-1-[(morpholin-4-ylacetyl) amino)-2,3-dihydro-1*H*-inden-2-yl]-6*H*-
- 30 thieno[2,3-*b*]pyrrole-5-carboxamide;
- 2-chloro-*N*-{(1*R*,2*R*)-1-({[(2-hydroxyethyl)(methyl) amino] acetyl} amino)-2,3-dihydro-1*H*-inden-2-yl)-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;

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*N*-((1*R*,2*R*)-1-([bis(2-hydroxyethyl)amino]acetyl)amino)-2,3-dihydro-1*H*-inden-2-yl)-2-chloro-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;

2-chloro-*N*-((1*R*,2*R*)-1-([ethyl(2-hydroxyethyl)amino]acetyl)amino)-2,3-dihydro-1*H*-inden-2-yl)-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;

5 2-chloro-*N*-((1*R*,2*R*)-1-([(2,3-dihydroxypropyl)(methyl)amino]acetyl)amino)-2,3-dihydro-1*H*-inden-2-yl)-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;

*N*-((1*R*,2*R*)-1-([bis(2-hydroxypropyl)amino]acetyl)amino)-2,3-dihydro-1*H*-inden-2-yl)-2-chloro-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;

*N*-{(1*R*,2*R*)-1-[(2-amino-2-oxoethyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2-chloro-6*H*-

10 thieno[2,3-*b*]pyrrole-5-carboxamide;

*N*-[(1*R*,2*R*)-1-[(tert-butoxycarbonylmethyl)amino]-2,3-dihydro-1*H*-inden-2-yl]-2-chloro-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;

*N*-{(1*R*,2*R*)-1-(carboxymethylamino)-2,3-dihydro-1*H*-inden-2-yl}-2-chloro-6*H*-thieno(3,2,*b*)pyrrole-5-carboxamide;

15 2-chloro-*N*-{(1*R*,2*R*)-1-[(hydroxyacetyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;

2,3-dichloro-*N*-{(1*R*,2*R*)-1-[(chloroacetyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;

*N*-{(1*R*,2*R*)-1-[(3*S*)-3-amino-3-carboxypropanoyl]amino]-2,3-dihydro-1*H*-inden-2-yl}-2,3-

20 dichloro-4*H*-thieno(3,2,*b*)pyrrole-5-carboxamide;

*N*-{(1*R*,2*R*)-1-[(2-carboxyacetyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2,3-dichloro-4*H*-thieno(3,2,*b*)pyrrole-5-carboxamide;

*N*-{(1*R*,2*R*)-1-[(2-carboxyacetyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2-chloro-6*H*-thieno(3,2,*b*)pyrrole-5-carboxamide;

25 *N*-{(1*R*,2*R*)-1-[(3*S*)-3-amino-3-carboxypropanoyl]amino]-2,3-dihydro-1*H*-inden-2-yl}-2-chloro-6*H*-thieno(3,2,*b*)pyrrole-5-carboxamide;

2,3-dichloro-*N*-{(1*R*,2*R*)-1-[(methylsulfonyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;

or a pharmaceutically acceptable salt or an in-vivo hydrolysable ester thereof.

30

13. A pharmaceutical composition which comprises a compound of the formula (1), or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof, as claimed in any one of claims 1 to 12 in association with a pharmaceutically-acceptable diluent or carrier.

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14. A compound of the formula (1), or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof, as claimed in any one of claims 1 to 12, for use in a method of treatment of a warm-blooded animal such as man by therapy.

15. A compound of the formula (1), or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof, as claimed in any one of claims 1 to 12, for use as a medicament.

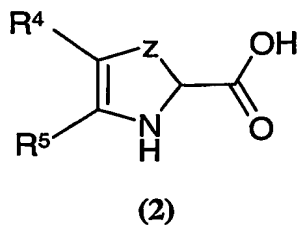
16. A compound of the formula (1), or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof, as claimed in any one of claims 1 to 12, for use as a medicament in the treatment of type 2 diabetes, insulin resistance, syndrome X, hyperinsulinaemia, hyperglucagonaemia, cardiac ischaemia or obesity in a warm-blooded animal such as man.

17. The use of a compound of the formula (1), or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof, as claimed in any one of claims 1 to 12, in the manufacture of a medicament for use in the treatment of type 2 diabetes, insulin resistance, syndrome X, hyperinsulinaemia, hyperglucagonaemia, cardiac ischaemia or obesity in a warm-blooded animal such as man.

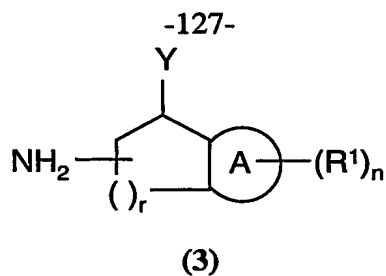
18. The use of a compound of the formula (1), or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof, as claimed in any one of claims 1 to 12, in the manufacture of a medicament for use in the treatment of type 2 diabetes in a warm-blooded animal such as man.

19. A process for the preparation of a compound of formula (1) as claimed in claim 1, which process comprises:

reacting an acid of the formula (2):



or an activated derivative thereof; with an amine of formula (3):



and thereafter if necessary:

- i) converting a compound of the formula (1) into another compound of the formula (1);
- 5 ii) removing any protecting groups;
- iii) forming a pharmaceutically acceptable salt or *in vivo* hydrolysable ester.